

L 23704-66 EWT(1) SCTH DD

ACC NR: AT6003856

SOURCE CODE: UR/2865/65/004/000/0217/0226.

AUTHOR: Kostikova, V. Ya.; Bayevskiy, R. M.; Kalinovskiy, A. P.; Soshin, B. A.

ORG: none

73

371

TITLE: Possible application of electronic logical circuits for automatic medical control

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 217-226

TOPIC TAGS: bioastronautics, bioinstrumentation, biotelemetry, automatic control system, logic circuit, *electronic circuit*

ABSTRACT: Space flights of longer duration and covering greater distances will sharply reduce telemetric transmission²⁶ of medical and biological data. This leads to the problem of developing on board automatic medical control devices for monitoring data on the astronaut's condition. For space flights along established orbits which do not require readjustment of programmed instructions during course of flight, electronic logic circuits are satisfactory because of their simple design, low weight and small size. The algorithm of analysis for each

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Sensors

Pulse rate
Respiration rate
Body temperature
Electric resistance of skin
Level of consciousness
Level of motor activity
Carbon dioxide level
Oxygen level
Temperature

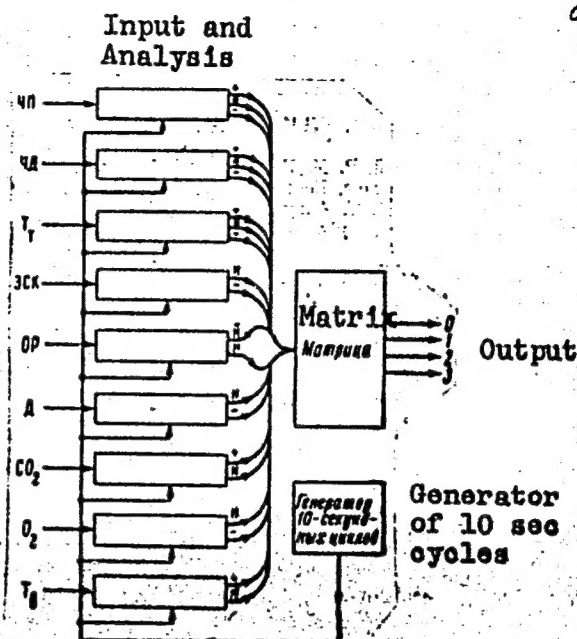


Fig. 6. Block diagram of an electronic logical system for automatic medical control.

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of the indices (such as, body temperature) includes three operations: (1) measurement of the index during a given interval of time; (2) comparison of the index value with the norm range in the form of symbols, e.g., designating normal by "N", or "+" for higher than normal, or "-" for lower than normal; and, (3) comparison of symbols of different parameters according to a given logical system and determination of a code indicating a "diagnosis." (see Fig. 6). All problems of automatic diagnosis in which linear programming is applicable can be solved by electronic logic circuits. Orig. art. has: 6 figures and 1 table.

SUB CODE: 06, 09/ SUBM DATE: none/ ORIG REF: 004.

Card 3/3 FV

KOSTIKOV, Ye.I., assistant.

Investigation of the conical smoke exhaust system in locomotives.
[Trudy] MVTU no.27:129-140 '54, (MLRA 7:11)
(Locomotives--Exhaust)

L 10806-66 EWT(m)/T IJP(c)
 ACC NR: AP5027306 SOURCE CODE: UB/0241/65/010/010/0067/0073
 AUTHOR: Belle, Yr. S.; Kostikov, Yu. I.; Shamov, V. P.; Shapiro, E. L.
 ORG: Leningrad Scientific Research Institute of Radiation Hygiene,
 Ministry of Health, RSFSR Leningradskiy Nauchno-issledovatel'skiy
 institut radiatsionnoy gigieny Ministerstva zdavookhraneniya RSFSR
 TITLE: Radiometric properties of the large liquid scintillation counter
 BZhSS-1
 SOURCE: Meditsinskaya radiologiya, v. 10, no. 10, 1965, 67-73
 TOPIC TAGS: scintillation counter, gamma counter, scintillation spec-
 trometer, radiation instrument, radiobiologic instrumentation, experi-
 ment animal/BzhSS-1 scintillation counter
 ABSTRACT: The article describes the counter and illustrates it in a
 figure. Its 47 dimension and large measuring volume permits consider-
 able amplification of the criterion of radiometric quality,
 n^2/n background. It is particularly suitable for measuring low gamma
 radiation in experimental animals up to a large rabbit and other objects
 of similar size. A procedure for finding the optimal differential
 registration channel is given. The instrument has spectrometric semi-
 Card 1/2 UDC: 612.014.482:621.387.4

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resolution equal to 39 and 21% for Cs¹³⁷ and K⁴⁰ respectively and thus does not allow analysis of complex gamma radiation spectra. Activities of $5 \cdot 10^{-11}$ to $5 \cdot 10^{-3}$ curies can be measured. Isosensitivity of the larger part of the measuring volume is shown to be high and is seen particularly upon moving the source. The configuration of the object hardly influences the measuring results. Increased specimen volume will lead to self-absorption and attenuation of initial gamma irradiation producing a slight drop in the count. This is shown on aqueous phantoms. For those up to 0.5 liter this does not depend on radiation energy and amounts only to a few percent. This counter has been used for radiobiologic and radiation protection studies and has been found highly reliable. Reproducibility was increased 10-20 times compared to radiochemical methods, and the number of measured objects reached 6000 per year. Its use for prevital radioactivity determination in experimental animals afforded studies of isotope metabolism in the organism. Orig. art. has: 10 figures.

SUB CODE: 06, 07/ SUBM DATE: 05Jan 65/ ORIG REF: 001/ OTH REF: 002

Card

2/2

IVANOV, B.I.; ISTOMINA, V.N.; LYUDKOVSKAYA, A.A.; KOSTIKOVA, A.Ya.;
TALYZENKOVA, G.P.

Preparation of thixotropic paint materials and study of their
physicomechanical properties. Lakokras.mat.i ikh prim. no.1:
28-33 '62. (MIRA 15:4)
(Paint materials)

IVANOV, B.I.; ISTOMINA, V.N.; LYUDKOVSKAYA, A.A.; KOSTIKOVA, A.Ya.;
TALYZENKOVA, G.P.

Methods of preparing thixotropic lacquer and paint materials.
Lakokras. mat. i ikh. prim. no.4:21-27 '61. (MIRA 16:7)

(Paint materials) (Thixotropic substances)

ANDREYEVA, O.I.; KOSTIKOVA, G.I.

Isotopic exchange of C^{14} in the systems, KCN - CO_2 , KCN - CO.
Trudy GIPKH no.49:149-158 '62. (MIRA 17:11)

L 52517-65 EWT(1)/EWT(m)/ENP(1)/T/ENP(t)/EEC(b)-2/ENP(b)/ENA(c) PI-4 IJP(c)
 ACCESSION NR: AP5010729 JD/GG UR/0181/65/007/004/1169/1174

AUTHOR: Rozhanskiy, V. N.; Kostikova, E. F.

TITLE: Morphology and origin of stacking faults in epitaxial layers

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1169-1174

TOPIC TAGS: epitaxial layer, stacking fault, crystal growth, dislocation motion

ABSTRACT: The authors investigated the configuration of stacking faults in epitaxial layers of germanium at the place of their origination on the boundary between the substrate and the epitaxial layer. The faults were observed in an electron microscope in transmitted light, at an accelerating voltage 100 KV. The sample preparation procedure is briefly described. The examination in the electron microscope has shown that the epitaxial layer is neither homogeneous nor of constant thickness but consists of individual coalesced drops. Single drops take frequently triangular, rectangular, or quadratic forms, the outlines of which disappear upon coalescence. Several types of classifications are found among the configurations of the stacking faults and are described. The formation of stacking faults is attributed to oxidation or to capture of impurities, and also splitting

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L 52517-65

ACCESSION NR: AP5010729

of substrate dislocations. "The authors thank N. N. Sheftal, Ye. I. Givargizov,
and V. L. Indenbom for useful discussion, and A. E. Stepanova, V. I. Muratova, and
Ya. Kostyuk for help with the experiment." Orig. art. has: 6 figures.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN
SSSR)

SUBMITTED: 09Nov64

ENCL: 00

SUB CODE: 88

RR REF SOV: 002

OTHER: 010

LL
Card 2/2

KRIVCHENKOVA, Lyusya; TYURINA, Lara; KOSTIKOVA, Lida; KOSAREVA, Lida;
RUMYANTSEV, Andryusha; CHIZHIKOVA, Lida; GOLEN'SHIN, Petya

Blooming gladioli in May. IUn. nat. no.5:11 My '58. (MIRA 11:5)

1.Shkola No.538, Moskva.

(Gladiolus)

KOSTIKOVA, R.I.

Diagnosis of zinc phosphide poisoning in livestock and poultry.
Veterinariia 36 no.5:73 Ky '59. (MIRA 12:7)

1. Saratovskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.
(Zinc phosphide--Toxicology)

STEPINA, S.B.; SEDEL'NIKOV, G.S.; KOSTIKOVA, R.V.

Solubility of strontium and calcium nitrates at 0°C. Zhur.neorg.
khim. 7 no.3:633-640 Mr '62. (MIRA 15:3)
(Strontium nitrate) (Calcium nitrate) (Solubility)

GURVICH, Ya.A.; KOSTIKOVA, V.P.

Use of ultraviolet spectroscopy in the analysis of new kinds of
captax put on the market. Zhur.VKHO 7 no.2:231-232 '62.
(MIRA 15:4)

1. Dorogomilovskiy khimicheskiy zavod.
(Benzothiazole--Spectra)

CURVICH, Ya. A.; ARISTOVA, T. V.; KOSTIKOVA, V. P.

Spectrophotometric determination of 2,2'-dibenzothiazole
disulfide. Zhur. VKHO 7 no.5:580 '62. (MIRA 15:10)

1. Dorogomilovskiy khimicheskii zavod imeni Frunze.

(Benzothiazole—Spectra)

KOSTIKOVA, V.V.

Characteristics of disorders in the intellectual activity of schizophrenia patients with psychopathylike manifestations in the picture of the disease and the defect. Vop.klin., patog. i lech. shiz. no.1:75-77 '64. (MIRA 18:5)

1. Laboratoriya eksperimental'noy patopsikhologii (zav. - doktor pedagogicheskikh nauk B.V.Zeygarnik) Moskovskoy gorodskoy psikhiatricheskoy bol'nitsy No.4 imeni Gannushkina (glavnyy vrach - V.N.Rybalka).

Leontyev G. I.
KOSTIKYAN, G.K., dots.; POPOV, V.I., kand. sel'skokhozyaystvennykh nauk;
KAZARYAN, V.A., assistant.

Subalpine pastures. Nauka i pered. op. v sel'khoz. 7 no.10:45-46
0 '57. (MIRA 10:11)

1. Yerevanskiy zooveterinarnyy institut.
(Armenia—Pastures and meadows)

KOSTILEVA, I.N., inzh.

Correct use of cotton-knitting machines. Tekstilna prom 11 no.3:15-17
'62.

KOSTIN, A.

K.E. TSiolkovskii, amateur photographer. Sov.foto 18 no.12:77
D '58. (MIRA 11:12)
(TSiolkovskii, Konstantin Eduardovich, 1857-1935)

KOSTIN, A. inzhener.

All-purpose gauge board with plumb line. Avt.dor.20 no.1:31 Ja '57.

(Measuring instruments)

(MLRA 10:3)

KOSTIN, A., inzhener.

Take the requirements of users into consideration in designing
automobiles. Avt.transp. 35 no.1:29 Ja '57. (MLRA 10:3)
(Automobiles--Apparatus and supplies)

KOSTERIN, V.; KOSTIN, A.

Improve loading and unloading operations. Rech. transp. 22
no.5:21-23 My '63. (MIRA 16:8)

1. Zamestitel' nachal'nika Volzhskogo on"yedinennogo parokhodstva
(for Kosterin).
(Cargo handling—Equipment and supplies)

KOSTIN, A.

In a Kaluga astronaut's house. Av.1 kosm. 45 no.4:19-21 Ap
'63. (MIRA 16:3)

1. Zamestitel' direktora muzeya K.E.TSiolkovskogo, g. Kaluga,
(TSiolkovskogo, Konstantin Eduardovich, 1857-1935)

KOSTIN, I., *spets. istoricheskikh nauk*

At the sources of the Leninist party. Komm. Voprush. Sil 5 no. 21:86-
92 N 164. (MIRA 17:12)

KONDRAT'YEV, I.; ABRAMOV, I.; AKSENOV, I.; KOSTIN, A., inzh.; STADNICHUK, P.,
mekhanik; DAVIDENKOV, N.; PALEYEV, G.

Supply of spare parts. Avt.transp. 43 no.3:26-29 Mr '65.

(MIRA 18:5)

1. Glavnyy inzh. Novokakhovskoy avtobazy (for Abramov).
2. Starokonstantinovskiy avtopark (for Stadnichuk).

MEYEROVICH, E.A.; KOSTIN, A.A.; KOKURKIN, B.P.; VLADIMIROV, S.P.

Studying the influence of ferromagnetic elements in the
construction of powerful aluminum electrolytic cells on
magnetic fields in the zone of melting. TSvet met. 38 no.11:
84-90 N '65. (MIRA 18:11)

LOZOVY, D.A., kand. tekhn. nauk; KOSTIN, A.A., inzh.; OSTROVSKIY, A.;
TSYGANOV, R.; CHVANOV, V.

Reviews and bibliography. Avt. dor. 28 no.4:30-42 Ap '65.
(MIRA 18:5)

MEYEROVICH, E.A. (Moskva); KOSTIN, A.A. (Moskva); NIKITINA, Yu.Ye. (Moskva);
KOKURKIN, B.P. (Moskva); VLADIMIROV, S.P. (Moskva)

Study of current supply systems of modern aluminum electrolyzers.
Izv. AN SSSR. Energ. i transp. no.1:89-93 Ja-F '64. (MIRA 17:4)

KOSTIN, A.A., inzh.

Location of roads in the region of great Tyumen' oil fields.
Avt.dor. 28 no.10:8-9 0 '65.

(MIRA 18:11)

KOSTIN, Al'bert Andreyevich, mladshiy nauchnyy sotrudnik

Electromagnetic transverse forces in a system of solenoids with parallel axis. Izv.vys.ucheb.zav.; elektromekh. 5 no.10:1091-1096 '62. (MIRA 15:11)

1. Gruppya teoreticheskoy elektrotekhniki energeticheskogo instituta imeni G.M.Krzhizhanovskogo.
(Electromagnets)

ACCESSION NR: AP5006818

S/0144/65/000/001/0113/0114

AUTHOR: Kostin, A. A. (Junior research associate of theoretical electrical engineering laboratory)

TITLE: Magnetic flux density on the axis of a conical coil

SOURCE: IVUZ. Elektromekhanika, no. 1, 1965, 113-114

TOPIC TAGS: magnetic flux density, conical coil

ABSTRACT: The flux density at a point x_0 lying on the axis of a conical coil passing a current i is determined by integrating a formula for the flux density of elementary coils of a length dS . The flux density of a conical coil is given by:

$$B(0, x_0) = \frac{\mu i}{2g} \left\{ \cos(\alpha - \beta_1) - \cos(\alpha - \beta_2) - \sin^2 \alpha \ln \frac{\left(\lg \frac{\beta_2}{2} - \lg \frac{\alpha}{2} \right) \left(\lg \frac{\beta_1}{2} + \lg \frac{\alpha}{2} \right)}{\left(\lg \frac{\beta_1}{2} + \lg \frac{\alpha}{2} \right) \left(\lg \frac{\beta_2}{2} - \lg \frac{\alpha}{2} \right)} \right\}$$

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ACCESSION NR: AP5006818

where μ is the magnetic permeability, w is the number of turns, α is the cone angle, and β is an angle connected with the position of the point x_0 . Orig. art. has: 1 figure and 16 formulas.

ASSOCIATION: Energeticheskiy institut im. V. M. Krzhizhanovskogo (Power-Engineering Institute)

SUBMITTED: 05Feb64

ENCL: 00

SUB CODE: EE

REF SOV: 000

OTHER: 000

Card 2/2

05439

SOV/120-59-3-10/46

AUTHORS: Shelkov, L. S., Prager, I. A. and ~~Kostin, A. G.~~

TITLE: Photon Counters for Accurate Measurements of Ultraviolet Radiation (Schetchiki fotonov dlya tochnykh izmereniy ul'trafioletovogo izlucheniya)

PERIODICAL: Pribery i tekhnika eksperimenta, 1959, Nr 3, pp 50-56 (USSR)

ABSTRACT: Photon counters have long been used in the detection of weak ultraviolet radiation (Refs 1-11). They have also been used in spectral analysis (Refs 12 and 13). In all this work photon counters were used either in qualitative or semi-qualitative studies or in measurements which do not require high accuracy. However, in spectral analysis the required accuracy should be at least 1-2% and the exposure time is usually limited to 30-60 sec. In such measurements photon counters have to be used with relatively large loads. Under such conditions, the counters are not sufficiently stable (Ref 14). However, these counters have very high absolute sensitivity, they are simple in construction and relatively cheap. The authors have, therefore, carried out some additional studies of photon counters under various working conditions Card 1/4 including high loads. Electrical and photometric

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SOV/120-59-3-10/46

Photon Counters for Accurate Measurements of Ultraviolet Radiation

characteristics have been obtained for self-quenching photon counters with photo-cathodes of various materials. Relatively large counting rates were used to ensure low statistical errors. A photon counter has been developed which has a Cu-Be photo-cathode and a tungsten grid screen. Such a construction considerably improves the constancy of the photo-cathode sensitivity. Experiments showed that Cu-Mg and Cu-Be photo-cathodes have very noticeable advantages. Fig 11 shows the construction of a photon counter developed by the authors which has a low dark current and low probability of formation of spurious pulses. In Fig 11, 1 is the stainless steel cathode cylinder, 2 is a tungsten screen grid, 3 is a Cu-Be photo-cathode, 4 are quartz to glass seals, 5 is a fused quartz window, 6 are kovar discs, 7 is a quartz tube and 8 is the anode wire. The area of the photo-cathode was made as small as possible. The quartz window has an 80% transmission for $\lambda = 1900 \text{ \AA}$. Fig 8 shows the variation in the sensitivity of a photon counter with a Cu-Be photo-cathode (curve 1) and a counter with an identical photo-cathode

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Photon Counters for Accurate Measurements of Ultraviolet Radiation

but with an additional screen grid (curve 2). The measurements were carried out consecutively with a light source of constant intensity. The counting rate is plotted along the vertical axis and the number of the observation along the horizontal axis. Fig 9 shows the sensitivity of the above two counters as a function of the total number of counts. The counting rate is plotted on the vertical axis and the total number of recorded pulses on the horizontal axis. Fig 10 shows the absolute spectral characteristics of Cu-Be photo-cathode counters at the beginning of their work (curve 1 refers to a counter without the grid and curve 3 with the screen grid) and after 10^6 recorded counts (curve 2 refers to the counter without the grid and curve 4 to the counter with the screen grid). All this work has shown that counters using the screen grid have more stable photo-metric characteristics. The main working parameters of an experimental set of counters with Cu-Be photo-cathodes and screen grids are given in Table 1. The maximum background is 35 pulses/min, the length of the plateau is 150-250 V and the plateau slope is between 0.06%-0.2% per V.

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SOV/120-59-3-10/46

Photon Counters for Accurate Measurements of Ultraviolet Radiation

The working voltage is between 1100 and 1200 V and the maximum counting rate is 40 000 pulses/min. All these results show that these counters may be used as highly sensitive detectors of ultraviolet radiation in the range 1900-3000 Å. The mechanism of the effect of the screen grid will be investigated later.

There are 11 figures, 2 tables and 18 references, 9 of which are Soviet, 2 French, 1 German and 6 English.

ASSOCIATIONS: Fizicheskii institut AN SSSR (Physical Institute of the Ac.Sc., USSR) and Moskovskiy elektrolampovyy zavod (Moscow Electronic Tube Plant)

SUBMITTED: April 19, 1958

Card 4/4

KOSTIN, A.G., kand. med. nauk (Voronezh, [obl.] ul. Dzen'kovskogo d.23 kv.1)

Some problems of the methodology of surgical setting of congenital dislocations of the hip joint in children. Ortop., travm. i protez. 26 no.9:16-20 S '65. (MIRA 18:10)

1. Iz kafedry gosital'noy khirurgii (zav. - prof. V.P. Radushkevich) Voronezhskogo meditsinskogo instituta.

SHELKOV, L.S.; PRAGER, I.A.; KOSTIN, A.G.

To the editor of "Pribory i tekhnika eksperimenta" concerning
E.N.Pavlova's letter. Prib. i tekhn. eksp. 6 no.2:198 Mr-Ap
'61. (MIRA 14:9)

(Photons--Measurement)

KOSTIN, A.G., kand.med.nauk

Method for using curarelike substance in surgery on the extremities.
Ortop.travm.i protez. 22 no.4:46-49 Ap '61. (MIRA 14:11)

1. Iz kafedry gosptal'noy khirurgii (zav. - prof.V.P. Radushkevich) Voronezhskogo meditsinskogo instituta.
(CURARELIKE SUBSTANCES) (EXTREMITIES (ANATOMY)—SURGERY)

~~KOSTIN, Aleksandr Ignat'yevich~~; RAZINKOV, P., red.; KUZNETSOVA, A.,
tekhn. red.

[Take care of apartment houses] Berech' zhiloi fond. Mo-
skva, Mosk. rabochii, 1963. 65 p. (MIRA 16:9)

1. Nachal'nik zhilishchno-ekspluatatsionnoy kontory No.5
Moskvy (for Kostin).

(Apartment houses)

KOSTIN, A.I., inzhener.

Calculation concerning a river bed of parabolic cross section. Gidr.stroi.
22 no.5:37-38 My '53. (MLRA 6:6)

(Hydrodynamics)

124-57-1-529

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 66 (USSR)

AUTHOR: Kostin, A. I.

TITLE: On a Partial-head Regimen in Conduit Systems (O polunapornom rezhime v trubchatykh sooruzheniyakh)

PERIODICAL: Sb. tr. Novocherkas. inzh. -melior. in-ta, 1955, Vol 5, pp 101-110

ABSTRACT: The author distinguishes three regions of a partial-head regimen in the flow through a conduit system: (1) a region exposed to a pressure head, but not to a vacuum, 2) a region comprising stable head and vacuum conditions, and 3) a region comprising fluctuations (instability) between the two. The peculiarities of the motion of the flow in the three regions are described, and criteria are adduced for the transition from one region to another.

V. V. Fandeyev

1. Hydraulic conduits--Flow--Analysis

Card 1/1

Kostin, A.I.

124-1957-2-1898

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 61 (USSR)

AUTHORS: Skiba, M.M., Kostin, A.I.

TITLE: To the Determination of the Critical Depth in a Trapezoidal Channel
(K voprosu opredeleniya kriticheskoy glubiny v trapetsoidal'nom rusle)

PERIODICAL: Sb.tr.Novocherkas. inzh.-melior. in-ta, 1955, Nr 5, pp 116-124

ABSTRACT: To determine the critical depth of a trapezoidal channel, h_k , by means of the formula

$$h_k = \xi_k y_{kp}, \quad y_{kp} = \frac{m}{b} \sqrt[3]{\frac{\alpha Q^2}{g b^2}} \quad (1)$$

where Q , b , and m are the discharge, channel bottom width, and the lateral-slope coefficient, respectively, and g and α are the acceleration of gravity and the Coriolis parameter, the following relationship is proposed:

$$\xi_k = f/(1 + y_{kp}) \quad (2)$$

Card 1/1 Special graphs and approx. formulas facilitate the computation.

1. Inland waterways--Design 2. Mathematics--Applications
P.G. Kiselev

KOSTIN, A.I.

99-7-4/14

SUBJECT: USSR/Irrigation

AUTHOR: Kostin, A.I., Candidate of Mechanical Sciences and Sevast'yanov, T.N., Engineer.

TITLE: "Improvement of the Discharge Section of Tubular Structures".
(Usovershenstvovaniye vykhodnoy chasti trubchatogo soorusheniya)

PERIODICAL: "Gidrotekhnika i Melioratsiya", 1957, # 7, pp 20-23, (USSR)

ABSTRACT: Tubular structures are largely used at water discharge points of irrigation systems. So far, none of the different discharge nozzles which have been developed in the past have proved satisfactory. The newly developed damper KS-1 (KC-1) meets the requirements. It consists of 4 square cross sectional beams, which form a girder partition. The lowest beam is installed on the bottom, the distances of the individual beams being 1/10 of the pipe's diameter. Since the upper section of the tube is not obstructed by a beam, danger of plugging is greatly reduced. In the event of clogging by objects carried by the water, cleaning can easily be accomplished by 2 workers. Reduced velocity of the water current permits considerable savings at the construction of the lower pools. Another advantage of

Card 1/2

KOSTIN, A.I.

Conjugate depths in a parabolic channel. Trudy NPI 106:111-112
'60. (MIRA 15:5)
(Hydraulic jump)

KOSTIN, A.I., inzh.

Analytical methods of determining the depth of a compressed
flow under conditions of a plane problem and the critical depth
in a trapezoidal channel. Gidr. stroi. 33 no.11:41-43 N '62.
(MIRA 16:1)

(Hydrodynamics)

KOSTIN, A.I., inzh.

At the Exhibition of the Achievements of the National
Economy. Vest.mashinostr. 45 no.8:78-79 Ag '65.

(MIRA 18:12)

KOSTIN, A.I., inzh.

Technology of machining parts for precision machine tools in
Switzerland. Vest.mashinostr. 45 no.11:47-50 N '65.
(MIRA 18:12)

(A) L 27318-66 EWT(d)/EWT(m)/EWP(f)/I-2

ACC NR: AM6001048

Monograph

UR/

D'yachenko, N. Kh.; Kostin, A. K.; Mel'nikov, G. V.; Petrov, V. M.; Kharitonov, B. A.

Theory of internal combustion engines (Teoriya dvigateley vnutrennogo sgoraniya) 58
Moscow, Izd-vo "Mashinostroyeniye," 1965. 459 p. illus., biblio. Textbook for 64
students specializing in internal combustion engines at institutions of higher
learning. Errata slip inserted. 16,000 copies printed.

TOPIC TAGS: internal combustion engine, carburization, engine combustion system,
engine performance characteristic, engine exhaust system

PURPOSE AND COVERAGE: This book is published as a textbook for students in higher
technical educational institutions and can also be used as a handbook for engine-
design engineers and their technical staffs. It gives an analysis of the internal
combustion engine and its applications, from agricultural equipment (stationary
and mobile) through automotive and marine uses. A thorough description of turbo-
superchargers and engine power rating is included. Fuel and cooling systems and
their characteristics are also discussed. This book was prepared by the internal-
combustion-engines faculty of the Leningrad Polytechnical Institute im. M. I.
Kalinin. The authors appear in the following order: B. A. Kharintovich, chapters I
and IX; G. V. Mel'nikov, chapters II and VII (Except subheading 4 and 5 in chapter
VII); N. Kh. D'yachenko, chapters III and VI (Except subheading 4 in chapter VI);
V. M. Petrov, chapters IV and V (Except subheading 1 and 4 in chapter V);
A. K. Kostin, chapters VIII, X, and subheading 4 in chapter VII; B. P. Pugachev,
subheading 1 and 4 in chapter VI; Yu. N. Isakov, subheading 5 in chapter VII.

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UDC: 621.43.001(075.8)

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ACC NR: AM6001048

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L 27318-66

ACC NR: AM6001048

X. Automatic control of internal combustion engines -- 406

Appendix -- 455

References -- 456

SUB CODE: 21/ SUBM DATE: 16Jul65/ ORIG REF: 026/

Card

3/3

KOSTIN, A.K., kand. tekhn. nauk, dotsent; LIVENTSEV, F.L., kand. tekhn. nauk,
dotsent; MEL'NIKOV, G.V., kand. tekhn. nauk, dotsent

Heat stress of the LOGK-1 gas motor compressor with evaporation cooling.
Energomashinostroenie 11 no.6:20-22 Je '65. (MIRA 18:7)

BURIN, M.M.; KOSTIN, A.K.

Using the method of thermoelectric analogy in investigating the
steady temperature state of an engine piston. Trudy LPI no.237:5-
10 '64. (MIRA 18:4)

KOSTIN, A.K.

Determination of limiting characteristics. Trudy LPI no.237:17-20
'64. (MIRA 18:4)

KOSTIN, A.K.

Heat transfer to the cooling medium of an internal combustion
engine. Trudy LPI no.228:102-108 '63, (MIRA 17:1)

MEL'NIKOV, G.V.; LIVENTSEV, F.L.; PETROV, V.M.; KOSTIN, A.K.

High-temperature cooling of the 10GK-1 gas motor compressor.
Trudy LPI no.221:153-165 '62. (MIRA 15:9)
(Compressors—Cooling) (Gas, Natural—Transportation)

KOSTIN, A.K.

A parameter for comparative evaluation of thermal stresses in
diesel engines. Trudy LPI no.221:166-179 '62. (MIRA 15:9)
(Diesel engines)

L 26489-65

ACCESSION NR: AT5003224

S/2563/64/000/237/0005/0010

10
3
B+1

AUTHOR: Burin, M. M.; Kostin, A. K.

TITLE: Using the electrothermal analogy method to investigate the steady state temperature conditions of a motor piston

SOURCE: Leningrad. Politekhicheskiy institut. Trudy, no. 237, 1964. Teplovyye mashiny; dvigateli vnutrennego sgoraniya i transportnyye mashiny (Heat engines; internal combustion engines and transport machines), 5-10

TOPIC TAGS: piston temperature, physical modeling, heat exchange, electric analogy, hydraulic analogy, grid integrator, internal combustion engine

ABSTRACT: The most widespread method of investigating the steady state temperature conditions of a moving engine part, such as a piston, has been the analogy method which makes it possible to measure such temperatures with a high degree of accuracy. This method, in turn, is divided into the electric and hydraulic methods, the first of which is more effective. The modeling of the temperature fields is based on the principle of electrothermal analogy and involves the use of 1) the continuous medium method and 2) the electric grid method. In the first case, the model represents a continuous electroconductive medium (electrolyte,

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L 26489-65

ACCESSION NR: AT5003224

electroconductive paper, tinfoil, dispersed mass, etc.), and in the second the model appears in the form of an electric grid produced by replacing the modeled field with the elements of an electric circuit. The electric modeling method is now used fairly often for the purpose of studying the major parts of internal combustion motors, such as pistons, bushings and valves. Electroconductive paper is used in most cases and, less often, an ohmic resistance grid. Orig. art. has: 4 figures-

ASSOCIATION: Leningradskiy politekhnicheskii institut imeni M. I. Kalinina
(Leningrad polytechnical institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR, TD

NO REF SOV: 010

OTHER: 000

Card 2/2

L 26597-65

ACCESSION NR: AT5003226

S/2563/64/000/237/0017/0020

AUTHOR: Kostin, A. K.

9
B+1

TITLE: Determining the limiting characteristics

SOURCE: Leningrad. Politekhnikheskiy institut. Trudy, no. 237, 1964. Teplovyye mashiny; dvigateli vnutrennego sgoraniya i transportnyye mashiny (Heat engines; internal combustion engines and transport machines), 17-20

TOPIC TAGS: calorific intensity, gas turbine, pressure charging, limiting characteristic, barometric pressure, motor power, fuel feed, turbosupercharger, marine engine, diesel locomotive engine

ABSTRACT: An increase in calorific intensity accompanying a change to a slower rate of operation is most likely in the case of motors with turbosuperchargers. If the reduced number of revolutions increases the fuel feed per cycle (which is characteristic of certain types of fuel devices), the resulting calorific intensity is still greater. As the rated engine operation usually corresponds to the optimum temperature of its parts, any increase in the calorific intensity above that level is usually considered inadmissible. So-called limiting characteristics are therefore determined in the case of marine and diesel-

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L 26597-65

ACCESSION NR: AT5003226

locomotive engines, because the manufacturer's rating is not always reliable. Under operational conditions, any disruption of the motor work or a breakdown of the air cooler or turbosupercharger will reduce the air pressure and temperature around the various motor inlets. This should be followed by a reduction of the fuel supply per cycle, i.e. a reduction in the power developed by the motor. Orig. art. has: 4 formulas and 2 figures.

ASSOCIATION: Leningradskiy politekhnicheskii institut imeni M. I. Kalinina
(Leningrad polytechnical institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: FR

NO REF SOV: 002

OTHER: 000

Card 2/2

BURIN, M.M.; KOSTIN, A.K.

Effect of scavenging air on the temperature of engine parts.
Trudy LPI no.249:29-34 '65. (MIRA 18:9)

KOSTIN, A.M. inzhener.

Rapid loading of automobiles in the Gorkiy harbor. Rech.transp. 15
no.12:26-27 D '56. (MLRA 10:2)
(Gorkiy--Cargo handling) (Automobiles--Transportation)

PAKHOMOV, V.B., kand. tekhn. nauk; NAUMOV, A.I., inzh.; SHELMANOV, V.S., inzh.; KONSTANTINOV, V.P., inzh.; KOSTIN, A.M., inzh.; SEMENOV, YU.K., inzh.; PYATLIN, A.A., kapitan; VAGANOV, G.I., kand. tekhn. nauk; SVIRIDOV, A.A., inzh. KHODUNOV, M.Ye., kand. yurid. nauk; SAPOGOVA, A.Ye., inzh.; SOYUZOV, A.A., doktor tekhn. nauk, prof., red.; VASIL'YEV, A.V., kand. tekhn. nauk; ALEKSEYEV, V.I., red.; KUSTOV, L.I., red.; VITSINSKIY, V.V., red.; BORISOV, I.G., red.; SOLAREV, N.F., red.; ANDRIYENKO, V.I., red.; SUTYRIN, M.A., red.; GOLOVNIKOV, V.I., red.; ZOTOVA, V.V., red.

[Manual for the navigator of a river fleet] Spravochnik sudovoditelia rechnogo flota. Izd.2., dop. Moskva, Transport, 1965. 423 p. (MIRA 18:2)

1. Gor'kovskiy institut inzhenerov vodnogo transporta (for Pakhomov, Semenov, Vaganov, Vasil'yev). 2. Moskovskiy rechnoy tekhnikum (for Naumov). 3. Volzhskoye ob'yedinennoye rechnoye parokhodstvo (for Shelmanov, Sapogova). 4. Ministerstvo rechnogo flota (for Konstantinov, Sviridov). 5. Kazanskiy port (for Kostin). 6. Moskovskoye rechnoye parokhodstvo (for Pyatlin).

KOSTIN, A.P.; SKACHKOV, B.S.; IBEREV, V.N.

Improve the quality of manufacturing water rheostats. Elek. i
tepl.tiaga 3 no.2:44 P '59. (MIRA 12:4)

1. Depo Len'ki, Tomskaya doroga.
(Electric rheostats)

KOSTIN, A.P.

Ecologic foundations of the increase in the productivity of farm animals. Zool. zhur. 41 no.12:1761-1770 D '62. (MIRA 16:3)

1. Kafedra fiziologii zhivotnykh Kubanskogo sel'skokhozyaystvennogo instituta, Krasnodar.
(Domestic animals) (Zoology--Ecology)

Kostin, A. P.

USSR/Farm Animals. Cattle

Q-2

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 35630

Author : ~~Kostin A. P.~~

Inst : Not Given

Title : Physiological Processes in Young Cattle under Different Ecological Conditions

Orig Pub : Tr. Kubansk. s.-kh. in-te, 1957, vyp. 3 (31), 45-67

Abstract : Experiments were carried out on 4 groups of cattle (mostly on castrated young bulls) in the Krasnodar region. The first group, composed of 30 animals of the Red Stoope breed, 9-18 months of age, was reared on the plains. The second analogous group of 19 heads was kept at an altitude of 1,000-1,800 m. above sea level. The third group, consisting of 16 heads of the Kuban'-Black Sea breed, raised at an altitude of 800-1,000 m., stayed for 45 days at an altitude of 1,800-2,000 m. The respiration, gas metabolism, and state of the cardiovascular system of the animals, were studied. It was found that on the plains in the summertime, during

Cord : 1/2

USSR/Farm Animals. Cattle

Q-2

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 35630

daylight hours the frequency of respiration was increased; likewise, cardiac activity and gas metabolism were intensified. The heat production and thermal regulation depended on the temperature of the air, the food consumed, and the movements of the animal. After the transfer of the cattle from the plains to high mountain pastures, the frequency of respiration and pulse were increased, as well as the formal elements in the blood. After a 45-day stay at the high altitude pasture, the level of the oxidation processes of the lung, and cardiac activity had decreased. The rapidity of the adaptation of animals to the new ecological conditions depended on the previous conditions of their management.

Card : 2/2

Kostin A.P.

Q-3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825220002

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30943

Author : Kostin A.P., Gasteva G.S.

Inst : Physiological Peculiarities of the Red Steppe and Kuban'-

Title : Black Sea Cattle.
(Fiziologicheskiye osvennosti u krasnostepnogo i kubano-chernomorskogo skota).

Orig Pub : Tr. Kubansk. s.-kh. in-ta, 1957, vyp. 3 (31), 68-81.

Abstract : Physiological processes under different ecological conditions were studied on 26 calves, 47 castrated bulls, 14 heifers, and 18 cows. The Red Steppe cattle surpass other breeds by their high adaptability to the hot climate of Kuban'. The first intake of food lowers the oxidation processes in the calf, but in the second and subsequent feeding, gas metabolism increases and cardiac activity is intensified. In calves of the Red Steppe

Card 1/2

KOSPIN, A.P., Doc Biol Sci -- (diss) "Physiological studies
of the adaptation of cattle to the factors ~~of environment~~ ^{OF} in
under conditions ^{OF} plains and mountains." Krasnodar, "Soviet
Kuban'", 1956, 29 pp (Acad Sci USSR. Inst of Physiology im
~~xxx~~ I.P. Pavlov) 120 copies (KL, 23-58, 103)

- 31 -

KOSTIN, A.P.

Physiology of altitudinal acclimatization in cattle. Opyt izuch.reg.
fiziol.funk. 4:54-65 '58. (MIRA 12:4)

1. Laboratoriya ekologicheskoy fiziologii (zaveduyushchiy - prof. A.D.
Slonin) Instituta fiziologii imeni I.P. Pavlova AN SSSR i Kafedra fizio-
logii zhivotnykh Kubanskogo sel'skokhozyaystvennogo instituta.
(CATTLE--PHYSIOLOGY)
(ALTITUDE, INFLUENCE OF)
(RESPIRATION)

KOSTIN, A.P.

Effect of digestive processes in rumen on the gas and energy
metabolism of ruminants. Agrobiologiya no.2:171-176 Mr-Apr '59.
(MIRA 12:6)

1. Kubanskiy sel'skokhozyaystvennyy institut, kafedra fiziologii
zhivotnykh.

(Ruminantia) (Metabolism)

KOSTIN, A.P.; SUKHOMLIN, K.G.

Reactions of cutaneous blood vessels to heat and cold in cattle.
Fiziol.zhur. 47 no.3:329-335 Mr. '61. (MIRA 14:5)

1. From the Animal Physiology Chair of the Agricultural Institute,
Krasnodar. (SKIN—BLOOD SUPPLY) (TEMPERATURE—PHYSIOLOGICAL EFFECT) .

ZEL'TSER, G.Ya.; VOLOBOYEV, I.N.; KOSTIN, A.P.; BULGAKOV, A.A.;
VOZNYUK, V.S.; KALMYKOV, A.M.; STUDENTSOV, S.A.; BERSHIDSKIY,
P.I.; MOISEYEV, G.A., insh., retsenzent; SOBAKIN, V.V., insh.,
red.; VOROTNIKOVA, L.F., tekhn. red.

[The TG102 diesel locomotive] Teplovoz TG102. Moskva, Transsheldor-
izdat, 1962. 150 p. (MIRA 16:1)
(Diesel locomotives--Hydraulic drive)

STARKOV, P.M., prof., red.; AKOPOV, I.E., prof., red.; KOSTIN, A.P.,
prof., red.; PYATNITSKIY, N.P., prof., red.; LATYSHEV, V.A.,
dots., red.; AGANYANTS, Ye.K., kand. med. nauk, red.

[Materials of the 14th Conference of Physiologists of the
Southern R.S.F.S.R.] Materialy Konferentsii fiziologov iuga
RSFSR Krasnodar, Vses. fiziologicheskoe ob-vo im. I.P.
Pavlova, 1962. 406 p. (MIRA 17:9)

1. Konferentsiya fiziologov yuga RSFSR. 14th, Krasnodar, 1962.
2. Kafedra normal'noy fiziologii Kubanskogo meditsinskogo
instituta, Krasnodar (for Aganyants). 3. Zaveduyushchiy kafedroy
farmakologii Kubanskogo meditsinskogo instituta, Krasnodar (for
Akopov). 4. Zaveduyushchiy kafedroy fiziologii zhivotnykh Kuban-
skogo sel'skokhozyaystvennogo instituta, Krasnodar (for Kostin).
5. Zaveduyushchiy kafedroy anatomii i fiziologii Krasnodarskogo
pedagogicheskogo instituta (for Latyshev). 6. Zaveduyushchiy
kafedroy biokhimii Kubanskogo meditsinskogo instituta, Krasnodar
(for Pyatnitskiy). 7. Zaveduyushchiy kafedroy normal'noy fizio-
logii Kubanskogo meditsinskogo instituta, Krasnodar (for Starkov).

EXCERPTA MEDICA Sec.14 Vol.12/5 Radiology May 1958

901. ~~KOSTIN A.S.~~ USE OF CHOLECYSTOGRAPHY IN CHILDREN (Russian text) - Kostin
A. S. Dept. of Ped. of the Med. Inst., Kiev. - PEDIAT. AKUS. GINEK.
1956, 6 (9-12) Illus. 8

Cholecystography was carried out in 54 children, using the Soviet preparation bil-
itrat as contrast medium. This was given per os 14 hr. before the roentgenolo-
gical examination, calculated 0.065 per kg. weight. The gallbladder shadow in
cholecystograms of generally healthy children has the shape of a pear. Complete
emptying of the gallbladder takes place in the course of 1.5 hr. after the ingestion
of egg yolk. In children suffering from cholangiocystitis, a decrease in the intensi-
ty of the gallbladder shadow and various shapes of the shadow (round, cylindrical,
conical, pear-shaped) were observed. The emptying of the gallbladder took place
at various times - from 0.5 to 2.5 hr. - indicating the presence of dyskinesia of
the bile ducts. The author established different types of emptying of the gallbladder
depending on its shape. Cholecystography can be recommended as a useful diag-
nostic procedure in children's hospitals. (Bilitrat = Iod phthaleinum natrium.)
Motuz - Kiev (S)

KOSTIN, A. S., Cand Med Sci -- (diss) "Materials for the diagnostics of the biliary tract in children." Kiev, 1960. 20 pp; (Kiev Order of Labor Red Banner Medical Inst im Academician A. A. Bogomol'ts); 300 copies; price not given; (KL, 25-60, 139)

KOSTIN, A.V. [Kostin, O.V.]

Asymptotic series in the theory of nonlinear systems of ordinary differential equations. Dop. AN URSR no.4:461-464 '64.

(MIRA 17:5)

1. Odeskiy gosudarstvennyy universitet. Predstavleno akademikom AN UkrSSR Yu.A.Miropol'skim [Mytropol's'kyi, IU.O.].

KOSTIN, A.V. (Odessa)

Single-valued solutions to nonlinear first-order differential
equations and some properties of real periodic solutions.
Ukr. mat. zhur. 16 no.1:110-115 '64. (MIRA 17:5)

KOGUT, A. [Kogut, G.V.]

Asymptotic formulae for the solution of linear systems of
ordinary differential equations. Dop. AN URSS no.10:1095-
1097 '62. (MLR' 18:4)

1. Odesskiy gosudarstvennyy universitet.

KOSTIN, A.V., kandidat sel'skokhozyaystvennykh nauk.

Absorption of light by the leaves of field crops. Izv.

TSKNA no.1:79-94-156.

(MLRA 9:10)

(Photosynthesis) (Leaves)

KOSTIN, A.V.

Authors' and readers' conference on shipbuilding literature.
Sudostroenie 24 no.4:75 Ap '58. (MIRA 11:4)
(Shipbuilding--Congresses)

S/021/61/000/005/002/012
D215/D304

AUTHOR:

A.V.
Kostin, O.V.

TITLE:

On the asymptotic properties of partial solutions of
non linear systems of ordinary differential equations

PERIODICAL:

Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 5,
1961, 590 - 594

TEXT: In the first part of the present paper the author gives a
sufficient condition, under which the system of differential equa-
tions

$$\frac{dy_i}{dt} = q_i(t) + \sum_{k=1}^n p_{ik}(t) y_k + X_i(t, y_1, \dots, y_n) \quad (i = 1, \dots, n), \quad (1)$$

has at least one bounded solution. All functions are defined in the
domain $G[t \geq T, |y_i| \leq a]$ where T, a are constant, $a > 0$ and the

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On the asymptotic properties ...

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D215/D304

functions used have the following properties. All functions are complex functions continuous in the domain G and $X_i(t, 0, \dots, 0) \equiv 0$, ($i = 1, \dots, n$). Functions $X_i(t, y_1, \dots, y_n)$ satisfy the Lipschitz conditions in the domain G , i.e.

$$|X_i(t, y_1, \dots, y_n) - X_i(t, z_1, \dots, z_n)| \leq L_i(t) \sum_{k=1}^n |y_k - z_k| \quad (i=1, \dots, n),$$

where $L_i(t)$ is a continuous function for $t \geq T$. System (1) in the domain G differs little from the linear triangular system

$$\frac{dy_i}{dt} = \sum_{k=1}^n p_{ik}(t) y_k \quad (i=1, \dots, n). \quad (2)$$

The aim of the paper is to present an improved method of successive approximations. Let y_{is-1} ($i = 1, \dots, n$) be the $(s-1)$ -st approximation then y_{is} is defined as follows:
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On the asymptotic properties ...

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D215/D304

$$\frac{dy_{1s}}{dt} = q_i(t) + \sum_{k=1}^{i-1} p_{ik}(t) y_{ks-1} + X_i(t, y_{1s-1}, \dots, y_{ns-1}) + \sum_{k=i}^n p_{ik}(t) y_{ks}$$

($i = 1, \dots, n$).

The initial values of y_{1s} could be chosen in such a way that y_{1s} are expressed by the formula:

$$y_{1s} = \int_{\lambda_i}^t q_i \exp \int_{\tau}^t p_{ii} d\tau + \sum_{k=1}^{i-1} \int_{\lambda_{ik}}^t p_{ik} y_{ks-1} \exp \int_{\tau}^t p_{ii} d\tau +$$

$$+ \int_{\lambda_{xi}}^t X_i(t, y_{1s-1}, \dots, y_{ns-1}) \exp \int_{\tau}^t p_{ii} d\tau + \sum_{k=i+1}^n \int_{\lambda_{ik}}^t p_{ik} y_{ks} \exp \int_{\tau}^t p_{ii} d\tau$$

($i = 1, \dots, n$).

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On the asymptotic properties ...

The limits of integration A_1, A_{1k}, A_{x1} were chosen in the following way:

$$A = +\infty \text{ if } \int_0^{\infty} \Phi e^{-\int_0^t \text{Re } p_{11} d\tau} dt$$

exists, and $A = T$ if not. Then the auxiliary functions $\xi_1(t, \varepsilon)$ were found from the

$$\begin{aligned} \xi_l = & \lambda_l \int_0^t |q_l| \exp \int_0^t \text{Re } p_{11} d\tau + \varepsilon \sum_{k=1}^{l-1} \lambda_{lk} \int_0^t |p_{lk}| \exp \int_0^t \text{Re } p_{11} d\tau + \\ & + n\varepsilon \lambda_{x1} \int_0^t L_l(\tau) \exp \int_0^t \text{Re } p_{11} d\tau + \sum_{k=l+1}^n \lambda_{lk} \int_0^t |p_{lk}| \xi_k \exp \int_0^t \text{Re } p_{11} d\tau \\ & (l = 1, \dots, n), \end{aligned} \quad (3)$$

It is evident that $\xi_1 = A_1(t) + \varepsilon B_1(t)$ ($i = 1, \dots, n$). The cons-
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On the asymptotic properties ...

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tant $\varepsilon \leq a$ could be chosen in such a way that:

$$A_1(t) + \varepsilon^0 B_1(t) \leq \varepsilon^0, \quad (i = 1, 2, \dots, n), \quad t \geq T, \\ (i = 1, 2, \dots, n)$$

when for example

$$0 \leq \frac{A_1(t)}{1 - B_1(t)} \leq a, \quad t \geq T,$$

($i = 1, 2, \dots, n$). It follows immediately that if the first approximation $/y_1(t)/ \leq \varepsilon^0$, ($i = 1, 2, \dots, n$), $t \geq T$, then all other approximations $/y_{is}(t)/ \leq \varepsilon^0$. If in addition

$$\text{Max}_{(1)} [\sup_{[T, +\infty]} B_1(t)] = m < 1$$

then the series of successive approximations is absolutely and uni-
Card 5/8

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On the asymptotic properties ...

formly convergent in the interval $(T, +\infty)$. Therefore, the following Theorem (1) was proved. If the limits A_1, A_{1k}, A_{x1} could be chosen in such a way that

$$\text{Max}_{(1)} [\sup_{[T, +\infty]} B_1(t)] = m < 1 \text{ and } \text{Max}_{(1)} \left[\sup_{[T, +\infty]} \frac{A_1(t)}{1-B_1(t)} \right] \leq a$$

then the system (1) has at least one bounded partial solution for $t \geq T$. Further let

$$Q_1 = \int_{A_1}^t /q_1/ \exp \int_{\tau}^t \text{Re } p_{11} dtd\tau, \quad L_1 = \int_{A_{x1}}^t L_1(\tau) \exp \int_{\tau}^t \text{Re } p_{11} dtd\tau,$$

$$P_{1k} = \int_{A_{1k}}^t /p_{1k}/ \exp \int_{\tau}^t \text{Re } p_{11} dtd\tau.$$

Card 6/8

S/021/61/000/005/002/012
D215/D304

On the asymptotic properties ...

If A_1 , A_{ik} , A_{xi} were chosen as previously described then Theorem 2 is correct. Theorem 2. If all conditions of Theorem 1 are fulfilled and additionally $Q_1 \rightarrow 0$ for $t \rightarrow +\infty$ then system (1) has at least one partial solution $y_1^*(t)$ ($i = 1, 2, \dots, n$) which tends to 0 as t tends to infinity. In the second part of the paper, the connection between the solution of the system

$$\frac{dy_1}{dt} = F_1(t, y_1, \dots, y_n) \quad (i = 1, \dots, n) \quad (4)$$

and the solution of the system

$$F_1(t, u_1, \dots, u_n) = 0 \quad (i = 1, \dots, n) \quad (5)$$

were considered and it was shown how to find approximation of any order. As a particular case the differential equation of the first order was considered

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On the asymptotic properties ...

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D215/D304

$$\frac{dy}{dt} = f(t, y) [y - v(t)], \quad (6)$$

where all functions are continuous for $t \geq T$. There are 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Odes'kyi derzhavnyi universytet (State University of Odessa)

PRESENTED: Y.Z. Shtokalo, Member of AS UkrSSR

SUBMITTED: July 15, 1960

Card 8/8

16.3400

S/044/62/000/006/017/127
B158/B112

AUTHOR: Kostin, A. V.

TITLE: Stability and instability of almost triangular systems, asymptotic properties of partial solutions of non-linear systems of differential equations

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 59, abstract 6B251 (Nauchn.yezhegodnik, Odessk. un-t. Fiz.-matem. fak. i N.-i. in-t fiz., Odessa, no. 2, 1961, 82 - 86) /B

TEXT: A system of equations

$$\frac{dy_i}{dt} = \sum_{k=1}^n p_{ik}(t) y_k + X_i(t, y_1, \dots, y_n)$$

($i=1, \dots, n$),
is studied, the right-hand terms of which are defined and continuous in the domain $G[t \geq T, |y_i| \leq a, T, a = \text{const}, a > 0]$.

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S/044/62/000/006/017/127
B158/B112

Stability and instability ...

It is assumed that this system in certain respects is close to a triangular system

$$\frac{dy_i^*}{dt} = \sum_{k=1}^n p_{ik}(t) y_k^*.$$

Certain conditions of stability are given, and also sufficient conditions of instability of a trivial solution. Proofs of the theorems are not given. The author reports only on the application of these for proving the method of O. Perron. Further conditions are given, which are sufficient for the existence at least of one bounded solution of a system of equations obtained from (1) by adding certain functions $q_i(t)$ to the right sides of these equations. [Abstracter's note: Complete translation.]

✓B

Card 2/2

KOSTIN, A.V.

Existence of bounded partial solutions and partial solutions
tending toward zero at $t \rightarrow +\infty$ in a system of ordinary
differential equations. Dif. urav. 1 no.5:585-604 My '65.
(MIRA 18:7)

1. Odesskiy gosudarstvennyy universitet.

GALEYEV, V.; KOSTIN, B.; VAZYKH, G.

Technical information. Okhr. truda i sots. strakh. 6 no.9:39-45
S '63. (MIRA 16:10)

KOSTIN, B.

Public inspection. Za bezop.dvizh. 4 no.4:1-2 Ap '62. (MIRA 15:5)

1. Predsedatel' Gorodskogo komiteta profsoyuza rabotnikov
svyazi, rabochikh avtotransporta i shosseynykh dorog.
(Automobiles--Inspection)

KOSTIN, B.A.; MANASYAN, B.Sh.

Wave-motion imitating gangways for safely setting men down on
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(Oil well drilling, Submarine)

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[Assembling and using safety devices in petroleum and gas
production] Montazh i ekspluatatsiya prispособlenii po
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Moskva, Gos.nauchno-tekhn.izd-vo nef. i gorno-toplivnoi lit-ry,
1959. 116 p. (MIRA 12:9)

1. Baku. Vsesoyuznyy nauchno-issledovatel'skiy institut po
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(Petroleum industry--Safety measures)

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(Cranes, derricks, etc.)

KOSTIN, B.A.

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(Cranes, derricks, etc.)